

FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE (REV. 7-2005)		ATTORNEY'S DOCKET NUMBER 283530US90PCT
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/563599
INTERNATIONAL APPLICATION NO. PCT/JP04/10069	INTERNATIONAL FILING DATE 8 July 2004	PRIORITY DATE CLAIMED 8 July 2003 earliest
TITLE OF INVENTION HEAT EXCHANGER		
APPLICANT(S) FOR DO/EO/US Naohisa HIGASHIYAMA et al.		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below. 4. <input type="checkbox"/> The US has been elected (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2)) <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)). 11. <input type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409). 12. <input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210). 		
Items 13 to 23 below concern document(s) or information included:		
<ol style="list-style-type: none"> 13. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 14. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 15. <input checked="" type="checkbox"/> A FIRST preliminary amendment. 16. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 17. <input type="checkbox"/> A substitute specification. 18. <input checked="" type="checkbox"/> A power of attorney and/or change of address letter. 19. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825. 20. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 21. <input type="checkbox"/> A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4). 22. <input type="checkbox"/> Express Mail Label No. 		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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23. Other items or information: Application Data Sheet Notice of Priority (2) PCT/IB/304 PCT/IB/308 PTO-1449 Reference Cited (1)																																																																																																																																		
<table border="1"> <tr> <td colspan="2">The following fees have been submitted:</td> <td colspan="2">CALCULATIONS</td> <td>PTO USE</td> </tr> <tr> <td colspan="2">24. <input checked="" type="checkbox"/> Basic national fee</td> <td>\$ 300</td> <td>\$ 300.00</td> <td></td> </tr> <tr> <td colspan="2">25. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article</td> <td>\$ 0</td> <td>\$ 200.00</td> <td></td> </tr> <tr> <td colspan="2">All other situations.....</td> <td>\$ 200</td> <td></td> <td></td> </tr> <tr> <td colspan="2">26. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . .</td> <td>\$ 0</td> <td></td> <td></td> </tr> <tr> <td colspan="2">Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the as an International Searching Authority.....</td> <td>\$ 100</td> <td>\$ 400.00</td> <td></td> </tr> <tr> <td colspan="2">International Search Report prepared by an ISA other than the US and provided to the previously communicated to the US by the IB.....</td> <td>\$ 400</td> <td></td> <td></td> </tr> <tr> <td colspan="2">All other situations.....</td> <td>\$ 500</td> <td></td> <td></td> </tr> <tr> <td colspan="2">TOTAL OF 24, 25 and 26 =</td> <td></td> <td>\$ 900.00</td> <td></td> </tr> <tr> <td colspan="5"> <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof. </td> </tr> <tr> <td>Total Sheets</td> <td>Extra Sheets</td> <td>Number of each additional 50 or fraction thereof (round up to a whole)</td> <td colspan="2">RATE</td> </tr> <tr> <td>- 100 =</td> <td>0 /50 =</td> <td>0</td> <td>x \$250.00</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="5">Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).</td> </tr> <tr> <td>CLAIMS</td> <td>NUMBER FILED</td> <td>NUMBER EXTRA</td> <td colspan="2">RATE</td> </tr> <tr> <td>Total claims</td> <td>31 - 20 =</td> <td>11</td> <td>x \$50.00</td> <td>\$ 550.00</td> </tr> <tr> <td>Independent claims</td> <td>2 - 3 =</td> <td>0</td> <td>x \$200.00</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="2">MULTIPLE DEPENDENT CLAIMS (if applicable)</td> <td><input type="checkbox"/> +</td> <td>\$ 360.00</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="4">TOTAL OF ABOVE CALCULATIONS =</td> <td>\$ 1,450.00</td> </tr> <tr> <td colspan="5"> <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2. </td> </tr> <tr> <td colspan="5" style="text-align: right;">SUBTOTAL = \$ 1,450.00</td> </tr> <tr> <td colspan="5">Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).</td> </tr> <tr> <td colspan="5" style="text-align: right;">TOTAL NATIONAL FEE = \$ 1,450.00</td> </tr> <tr> <td colspan="5">Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property + \$ 0.00</td> </tr> <tr> <td colspan="5" style="text-align: right;">TOTAL FEES ENCLOSED = \$ 1,450.00</td> </tr> <tr> <td colspan="4" rowspan="2"></td> <td>Amount to be \$</td> </tr> <tr> <td>Amount to be \$</td> </tr> </table>					The following fees have been submitted:		CALCULATIONS		PTO USE	24. <input checked="" type="checkbox"/> Basic national fee		\$ 300	\$ 300.00		25. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article		\$ 0	\$ 200.00		All other situations.....		\$ 200			26. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . .		\$ 0			Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the as an International Searching Authority.....		\$ 100	\$ 400.00		International Search Report prepared by an ISA other than the US and provided to the previously communicated to the US by the IB.....		\$ 400			All other situations.....		\$ 500			TOTAL OF 24, 25 and 26 =			\$ 900.00		<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). 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IAP15 Rec'd PCT/PTO 06 JAN 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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- a. A check in the amount of \$ _____ to cover the above fees is enclosed.
- b. Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.
- d. Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Customer Number
22850

Surinder Sachar

SIGNATURE

Masayasu Mori

NAME

47,301

REGISTRATION NUMBER

Jan 6 2006

DATE

Surinder Sachar
Registration No. 34,423

Docket No. 283530US90PCT

IN RE APPLICATION OF: Naohisa HIGASHIYAMA, et al.

SERIAL NO: New U.S. PCT Application Based on PCT/JP04/10069

FILED: Herewith

FOR: HEAT EXCHANGER

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Transmitted herewith is an amendment in the above-identified application.

No additional fee is required

Small entity status of this application under 37 C.F.R. §1.9 and §1.27 is claimed.

Additional documents filed herewith: PCT Transmittal Letter/Application Data Sheet/Notice of Priority (2)/Declaration Preliminary Amendment/PCT/IB/304/PCT/IB/308/International Search Report Information Disclosure Statement/Form PTO-1449/Reference Cited (1) Credit Card Payment Form for \$1450.00

The Fee has been calculated as shown below:

CLAIMS	CLAIMS REMAINING		HIGHEST NUMBER PREVIOUSLY PAID	NO. EXTRA CLAIMS	RATE	CALCULATIONS
TOTAL	31	MINUS	31	0	x \$50 =	\$0.00
INDEPENDENT	2	MINUS	3	0	x \$200 =	\$0.00
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIMS					+ \$360 =	\$0.00
TOTAL OF ABOVE CALCULATIONS						\$0.00
<input type="checkbox"/> Reduction by 50% for filing by Small Entity						\$0.00
<input type="checkbox"/> Recordation of Assignment					+ \$40 =	\$0.00
TOTAL						\$0.00

A check in the amount of \$0.00 is attached.

Credit card payment form is attached to cover the fees in the amount of \$0.00

Please charge any additional Fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time may be charged to Deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Masayasu Mori

Registration No. 47,301

Customer Number

22850

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(OSMMN 05/03)Surinder Sachar
Registration No. 34,423